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From Wealth to Poverty: The Rise and Fall of Cod around Mount Desert Island

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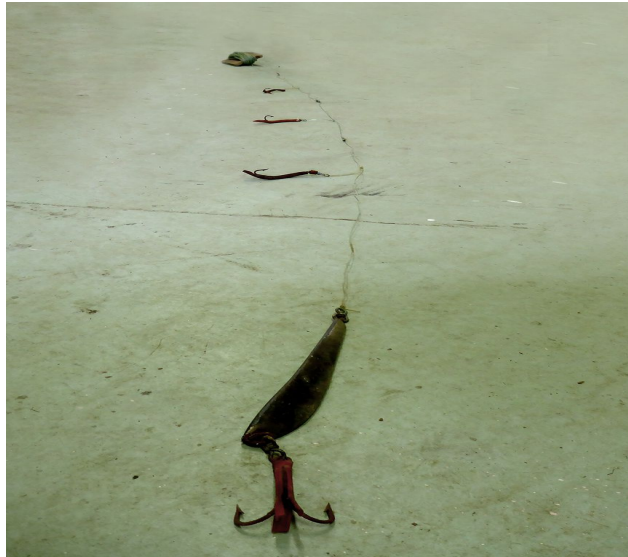
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Jarvis Newman's handline, which he used un-baited out around Mount Desert Rock in the 1950s and 1960s. *Courtesy of Natalie Springuel*

From Wealth to Poverty: The Rise and Fall of Cod around Mount Desert Island

Natalie Springuel, Bill Leavenworth, and Karen Alexander

Heere we found an excellent fishing for Cods, which are better than those of New-found-land, and withal we saw good and Rockie ground to dry them upon.”¹

—Martin Pring describing the coast of Maine in 1603, probably east of Penobscot Bay.

MDI has the dubious honor of being one of the major puzzles in my research for understanding historical populations.²

—Ted Ames describing the coast around Mount Desert Island in 2014, seeking to understand the cod collapse.

*This article is dedicated to Victor Levesque, 1929-2015, and
all the other old-time Mount Desert Island fishermen whose
knowledge, skills, stories, and lives
built our communities.*

Introduction

The history of cod fishing in the Gulf of Maine, particularly around Mount Desert Island and the Down East coast, begins with a tremendous diversity and volume of fish and ends in a marine ecological tragedy. It is a story of decline that cannot be told in isolation from farming and timber harvesting or from other fisheries. But it is also a story of people. Many thousands of people around Mount Desert Island in the last four hundred years have built their lives around cod and other fish. Cod drew settlers to the region, provided work in the fishery and in myriad ancillary businesses, and spawned social, cultural and economic systems that persist, despite the utter collapse of the fish themselves.

This article is divided into two parts: the first, an historical account of the fishery in the Mount Desert Island region, proceeding from colonial European settlers through the early twentieth century and including an in-depth look at log books from the Frenchman Bay Customs District.³ The second part explores the last 100 years through interviews. Participants recall catching fish, working on wharves where fish were landed, and living through the transition to gear that could catch, as one interviewee put it, “every last fish.”

Part 1: The Historical Records

Natural resources draw early settlers

English and French settlers were drawn to the Maine coast in the early 17th century by its apparently inexhaustible supply of fish and timber, and the Mount Desert Island region was no exception. Both fish and timber were in high demand and potential sources of great fortunes in international markets. The fish, especially cod, would keep for months if salted and dried, and the timber was good for everything from oaken barrel staves and ship frames to pine masts and decks for warships and clapboards for housing. England and France fought constantly for these resources over the next two centuries.

Rich in cod and timber, the area surrounding Mount Desert Island was a war zone from 1613—when Captain Samuel Argall of Virginia

routed the colony of Saint-Sauveur, a nascent French settlement on the island—to the last of six French and Indian Wars in 1763. This long intermittent warfare left regional fisheries and forests largely undisturbed, in contrast to more depleted resources further west along the Gulf of Maine and east on the Nova Scotia coast. In the wake of British and Colonial victories over French Canada, English colonists began to settle along the Central Maine coast in 1761. They found an intact coastal ecosystem and quickly began to exploit it, by fishing both for local consumption and export to southern New England markets, shipping out lumber, and subsistence farming.

At that time vast forests still covered the headwaters of Maine rivers. Occasionally pines could be found that were fit for Royal Navy masts. These forests regulated stream flow and water quality in the watersheds, while seasonal migrations of diadromous fish (species that migrate over their lifecycle between river and sea to spawn) brought marine nutrients into the forest, and river nutrients into the estuaries and ocean. Thus, estuaries and bays functioned as nutrient pumps for the near-shore ecosystem. From the mainland out to the undersea ridges, coastal waters supported innumerable forage fish in season. Smelt, cunners, and tomcod (a small member of the Gadid or Cod family) spent almost all their lives in estuaries. Alewives and shad matured and foraged in the ocean, but spawned seasonally in freshwater, while herring, mackerel, and menhaden spent their entire lives at sea and in coastal waters. All of these small fish consumed plankton that flourished in the productive mix of fresh and saltwater nutrients along the coast. Hunting these forage fish came large schools of cod, haddock, and hake, as well as mackerel, halibut, swordfish, tuna, and whales. Along the bottom lay beds of clams and scallops, additional food for cod.

For settlers, there was ample timber to build boats, and all that was needed from away was cordage, sailcloth, and iron. In 1761 Abraham Somes and James Richardson moved from Cape Ann to Mount Desert, settling on land offered by the Governor of Massachusetts, and others soon followed.⁴ The region not only provided bountiful cod, but timber—which had grown scarce in coastal Massachusetts—to make flakes for drying fish and barrels for shipment. A visitor to the island in 1792 reported that each family had a small farm and a fishing boat, and traded their surplus fish for necessities they couldn't provide locally.⁵

From that first period of settlement until the 1860s, the cod fishery was a community affair and changed little. John DeLaittre, born in Ellsworth in 1832, wrote about it in his reminiscences in 1910:

The vessels were usually owned in small fractions by farmers and fishermen combined—sometimes an individual interest would be as low as a thirty-second, and rarely one ever owned more than a quarter or an eighth. The people in a neighborhood would club together and those who had a little money would take an eighth or a sixteenth interest. Some would put in their work in building the vessel. Many of them were good ship carpenters, and each winter at Trenton Point there were two or three of these vessels built. Often times they were built in dooryards, where the men, during the cold weather, could go into the sheds and out-houses and have shelter; and in the spring the vessel was mounted on wheels and hauled by the oxen in the vicinity to the shore, a mile or more away. Then came the question of sails and rigging and equipping them. The people had no money to do this with, but there were ship chandlery firms in the larger coast cities, such as Portland, Portsmouth and Boston, who would equip one of these vessels and wait for their pay until the owners caught enough fish to reimburse them. I presume one of these small craft, fully equipped, would be of the value of from eight thousand dollars to ten thousand dollars, and frequently would be owned by ten or a dozen fisher folk and families. The vessel thus equipped was ready for a voyage. The captain was selected by the owners and he selected his crew. None were paid in wages. Their pay depended entirely on the number of fish they caught . . .⁶

The coastal fishermen DeLaittre refers to fished over the vessel's side with handlines, each with two baited hooks on a hand reel, until the 1850s, when dory fishing and tub trawls (longlines with 500 to 1000 baited hooks) were gradually introduced.⁷



Drawing from the log of the *Emeline*, William Ward, Master, out of Tremont, 1864. This fine pencil and ink drawing on the back of the logbook shows a typical handlining fishing schooner. Four lines extend out from tiny figures along the rail into the water. Birds circling round may have been eating herring or menhaden, and a schooner in the distance, attracted by the activity, will soon arrive to start fishing. *Courtesy of the National Archives and Records Administration, Waltham, Massachusetts (RG 36, Box 3, E-104)*

After the Massachusetts cod fishery exhausted once-abundant shore stocks, it moved down the Maine and Nova Scotia shores and toward offshore grounds as far away as the Grand Banks. In contrast, Maine's cod fishery east of Casco Bay remained relatively unchanged from first settlement until after the Civil War, thanks to light fishing pressure, enormous quantities of inshore forage, and ample spawning grounds.

The cod fishery triggers other Mount Desert Island fisheries

To understand changes in the cod fishery, it is important to look at changes in the overall species complex that supported the fishery ecologically and economically. Two forage species, alewives and menhaden, were especially crucial to coastal fisheries because these fish contained higher concentrations of fatty acids essential to the spawning success of cod and other ground fish. Cod spawning and nursery grounds clustered along the coast off estuaries, such as the Union River that feeds into Blue Hill Bay, where forage was abundant for juveniles and adults.⁸ Fishermen harvested large quantities of alewives, menhaden, herring, and clams to use as bait. Menhaden, alewives, and herring were

caught in weirs attached to the shore and in gillnets trailed from vessels at night. Clams were dug at low tide, such as at the Stave Island Bar in eastern Frenchman Bay.

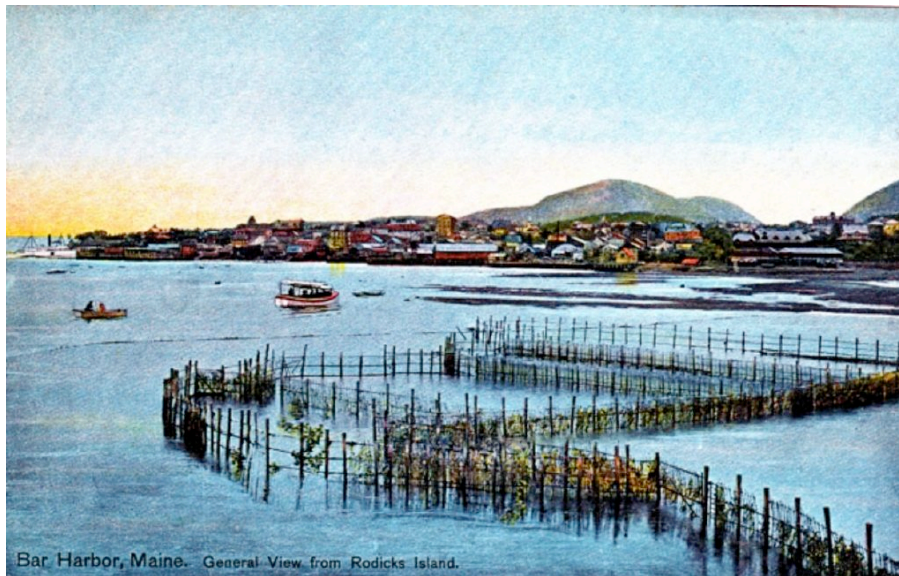
With increasing demand for bait, local weir fisheries sold fish by the 200-pound barrel to local fishermen as well as to fishing vessels bound for offshore banks. One large weir was on Rodick's Island (now Bar Island) bordering Bar Harbor. In 1884 the *Maine Mining and Industrial Journal* reported "A big haul of herring—some 3,000 to 5,000 bushels [roughly 210,000 to 350,000 pounds⁹]— was made this week in the weir at Rodick's Island."¹⁰ And the Journal announced the next year that "Herring have been quite plentiful in Frenchman's Bay recently. One day last week 1,000 bushels [70,000 pounds] of the fish were taken in the Rodick weir at Bar Harbor in one tide."¹¹ This was one of many weirs in the area; at this time, Penobscot Bay supported 183 of them.

The Frenchman Bay Customs District

Fortuitously, more than 500 logs from cod fishing vessels from the Mount Desert region in the 1800s still exist. When examined with other documentation of vessel licenses, contracts, and United States census records, the logs provide unparalleled economic, ecological, and social information about cod fishing during the mid-19th century. These logs exist because, from 1793 to 1866, American cod fishermen received a federal bounty— a subsidy—for engaging solely in the salt cod fishery. Since the bounty was based on vessel size, not catch, it paid to put out in larger vessels. An 1852 amendment required that any captain applying for the cod bounty present his log to the customs officer of his home district—in this case the Frenchman Bay Customs District, which included towns on Mount Desert Island and mainland towns on Frenchman Bay and Blue Hill Bay. These logs are now kept in the National Archives and Records Administration in Waltham, Massachusetts.

Customarily, logs included the names of the crew, the days and places they fished, the weather, and the number of fish each man caught. They tell us that sailing vessels from the Frenchman Bay District fished for cod from eastern Penobscot Bay to Grand Manan. In 1861 alone, these fishermen caught nearly 27,000,000 pounds of cod in this portion of the Gulf of Maine, and over 9,000,000 pounds of cod around Mount

Desert Island and out to Mount Desert Rock. Ninety percent of these cod were caught within 25 miles of shore.



Bar Harbor, Maine. General View from Rodicks Island.
Herring Weir at Rodick Island (now Bar Island), prior to 1907.
Courtesy of the W.B. Leavenworth Postcard Collection

Although some crewmen were professional fishermen who worked out of other ports when the cod season was over, most had other professions. Only 22 percent of the 2,000 fishermen listed as crew in Frenchman Bay District logs were listed as “fishermen” in federal census records; 27 percent were schoolboys. The rest practiced 70 different occupations, but most were farmers, sailors, carpenters, and artisans.

These kinds of records illustrate how the coastal cod fishery in the Mount Desert Island area was organized around family and neighbors, as John DeLaittre and earlier writers observed. In 1861, for example, the vessel *Union* out of Gouldsboro listed two crewmembers who were just two and three years old. The youngest, Sylvesta, was the son of James Lindsey Jr., a *Union* fisherman. The other was Freddy Temple, Sylvesta’s neighbor. Another neighbor, John Clark, a 60-year-old farmer, was by far the oldest and wealthiest man aboard the ship. The importance of community in the fishery is unmistakable in these records. On 76 percent of vessels, half of the crew came from one town, and on 50 percent of the vessels, a third of the crew came from one family. Thus, cod fishing was a common experience that forged adult citizenship

and bound communities together. Women were also involved in the cod fishery as vessel stock owners and as “shoremen” for family vessels. A shoreman at 17, Ann Haraden was in charge of salting and drying cod caught by the *Fish Hawk* of Gouldsboro, her father’s boat. Their seasonal income was literally in her hands.



Fish house in Southwest Harbor with swordfish and halibut, 1891. *U.S. Fish Commission Photo 6808 from the NOAA Photo Library. Courtesy of the National Oceanic and Atmospheric Administration/Department of Commerce*

A combination of farming and fishing allowed many fishermen to rise in the world, accumulate wealth, and move to more substantive endeavors while spending time with families and neighbors. Fishing provided almost every local family with cash and helped young families build a nest egg. For instance, a typical farm laborer at 25 owned little property (average value \$50). By fishing, that laborer could become a farmer or mariner himself by the age of 35, and own land worth perhaps \$250 (on average). At 45, this farmer or shipmaster could be worth from \$700 to \$1100 in land and vessels or other personal property. This was the career path for many fishermen in the Mount Desert Island region.

A variation of this strategy in the Grant family of Surry shows how fathers taught their sons the ropes. Moses Grant, a mariner aged 46, owned the 35-ton schooner *Holbrook* in 1861. Grant and his three sons made up half the crew, with middle son, Jasper, at 20, acting as captain.

The *Holbrook* landed 22,588 cod, worth \$1,497, in eighty-three days' successful fishing. The next year the Grants bought a bigger schooner, the 92-ton *Florida*. Jasper was listed as owner this time and his younger brother Osman was captain. Moses again sailed as a fisherman and six of the eleven-member crew were Grants. The *Florida* landed 12,922 cod in just forty-nine days of successful fishing, but because of her greater tonnage, still grossed \$1,560. The increased tonnage of the *Florida* made up for their smaller catch. Both years Moses Grant's vessels made about \$1500, but in 1862 it took them about half the time as in 1861.¹²

Unlike the more industrialized offshore bank fishery of that time, this family fishery was not so hard-driving. Frenchman Bay fishermen took breaks from fishing. Some logs report that crews went ashore to vote in elections. Other vessels put in so fishermen could harvest their hay. More common were vessels that went home weekly, so that all but the watch could attend Sunday services.

In addition to being built and crewed by local men, vessels were often sold within the region. For example the *Rozella*, a Grant family vessel in Surry, became a Stanley family vessel in the Cranberry Isles. Enoch Stanley of Cranberry Isles was a highliner (a term used to describe an especially successful fisherman) in the Mount Desert Island region. According to Ralph Stanley of Southwest Harbor (Enoch's great grandson), the *Rozella* was built in the 1840s and was a bluff-bowed cargo vessel, not a sleek fishing schooner, that would "butt her head three times against a wave, then fall off and go around it." She remained in the Stanley family for many years.¹³

Cod and the complex coastal environment

Cod in the Mount Desert Island region appear to have been fished sustainably up to the Civil War. However, industrial uses for baitfish and inland timber harvesting began to damage forage stocks that had once seemed limitless. As the industrial revolution gathered speed, more and more oil was needed to lubricate machinery. The whale fishery was in decline, petroleum was not yet competitive, and menhaden were the oiliest schooling fish in the northwest Atlantic. Oil extraction from menhaden began in Blue Hill in the 1840s, and soon an increasing menhaden fishery threatened coastal cod fishing.

Mount Desert Island fishermen knew menhaden drew cod inshore. By 1848 they had petitioned the Maine State Legislature to close the

menhaden fishery to oil-factory seiners. James Lindsey of Gouldsboro, who later became Sylvesta Lindsey's grandfather, signed one such petition from 1858, declaring that "the aforementioned 'menhaden oil business'. . . will be to the material injury of the codfishery interest in this State. . . ." While the majority of petitions and fishermen favored regulating the menhaden fishery, industrial interests won out. Schools of menhaden that had once blanketed the Maine coast shrank steadily. After less than a decade of oil-harvesting, only remnants remained. By 1879, menhaden and its industrial fishery had collapsed along the Maine coast,¹⁴ and only alewives and herring were left to attract cod into coastal waters. These too were threatened.



Schooner with deck load of wood entering Bar Harbor, before 1907.

Courtesy of the W.B. Leavenworth Postcard Collection

Another critical forage fish for cod inshore, alewives were reduced by the rapid expansion of dams. Local industry relied on dams to power mills and factories, but dams blocked alewives from many of their spawning grounds. At the same time, extensive salt marshes on the northeastern side of Frenchman Bay shrank as nutrients disappeared. Forests that had long preserved the water tables feeding alewife streams were steadily felled and shipped away as lumber or firewood. In May 1848, a Sullivan lumber agent wrote to his partners from Boston, urging them to beat a Bangor shipment of railroad ties so they could get the

best prices on the Boston market.¹⁵ With lumbermen around Frenchman Bay competing against much larger Penobscot River operations, timber interests quickly removed much of the forest, and sawdust washed downriver, covering riverbeds, streambeds, and estuaries. Forest removal dried out some of the watersheds that fed salt marshes and estuaries—formerly nurseries for herring and juveniles of many marine species. Nevertheless, coasting schooners with deck loads of timber and firewood cut from local forests were a common sight in Frenchman Bay while the forests lasted, into the early 20th century.¹⁶

The Frenchman Bay Customs District catch diversifies

Despite the gradual loss of timbered watershed and forage for cod and other ground fish, the cod fishery continued through the 19th century much as it had started, as thriving local seasonal employment. There was not yet any noticeable shortage of cod to satisfy coastal handline and tub trawl fisheries, nor of herring to bait their hooks, while everyone fished seasonally and nobody fished on Sundays. Even after the removal of the bounty for cod and the destruction of menhaden runs, the coastal cod fishery continued to provide a good seasonal income for extended family and neighborhood crews as long as alewives, herring, and other forage species survived.

To make up for the loss of the cod bounty, fisheries diversified, expanding catch to include other ground fish like hake, haddock, cusk, pollock, halibut, and flounders, as well as top predators like swordfish (sent frozen with pond ice to Boston and New York) and tuna (for cat food). Longlines continued to increase pressure on the bait industry by creating hundreds of times more demand for baitfish. Meanwhile, some whose fathers had been fishermen began to host “rusticators” in their homes in summer, and let them fish off the docks. Others built hotels, and provided a tourist market for fresh fish and lobster.

The United States Fish Commission published its first exhaustive study of American fisheries in 1887. Its statistics reveal a very different, albeit still seasonal, fishery in the Frenchman Bay Customs District in 1880.¹⁷ Fewer people and vessels were employed than in the 1860s, but gear and species targeted had greatly expanded. Seven hundred and twenty-six fishermen worked on 46 vessels and 439 boats, and 69 worked as shoremen on the flakes. Together they targeted diverse species using 478 gillnets, seven purse seines and 17 haul seines, 17 weirs, 20

fyke nets, and 12,900 lobster traps. Landings included 6,534,125 pounds of cod, over one and a half million pounds each of hake and haddock, over 200,000 pounds of pollock, and 100,000 pounds of cusk. Nearly all of this catch was still salted and dried on flakes—the rest pickled or smoked. Since average vessel displacement was just over 32 tons, most of these vessels and all of the boats were still fishing within sight of Mount Desert Island in what was then called the “shore fishery.” In addition, fishing communities in the Mount Desert Island region produced over 600,000 pounds of pickled mackerel, 500,000 pounds of pickled herring, and 579,000 pounds of smoked herring. They also marketed over 1.6 million pounds of lobster and 151,000 pounds of clams.



Fish drying on flakes under rain shelters at Parker's Wharf in Southwest Harbor.

U.S. Fish Commission Photo 6791 from the NOAA Photo Library.

Courtesy of the National Oceanic and Atmospheric Administration/Department of Commerce

This was a mature fishery, already overfishing some commercial species, but not in a way that would have aroused outside concern. Fishermen knew better, though. The *Maine Mining and Industrial Journal* posted this news from Bar Harbor at the end of October, 1882: “The fishing season has closed and although fish [likely cod] have been very scarce, the price has been so high that the fishermen have made a very good summer's work.”¹⁸ Greater harvest of baitfish like herring and

alewives, often before they spawned, meant fewer adults and juveniles to draw mature ground fish inshore, and fewer larval fish to feed juvenile ground fish on coastal nursery grounds. But enough large marine predators continued to come into the Frenchman Bay region, drawn by millions of migrating herring: “The schooner *ETTA DAVIS* brought four . . . [sword]fish and also two porpoise. The swordfish were each about thirteen feet in length and one of the swords measured five feet. The *ETTA DAVIS* made her catch just off Mount Desert.”¹⁹

Herring bait even made the news from time to time, as in this report from in mid-June 1886: “Orlando Ash, a large land owner at Bar Harbor, has seven fish weirs at Greening’s Landing in the harbor and sells on an average twenty-five bushels of herring daily which is used for bait.”²⁰ Brought up in the cod-fishery by his father Benjamin Ash, captain of the schooner *Glide* out of Eden (now Bar Harbor), Orlando had evidently diversified and done well.

The beginning of the decline

Over time, things changed. The combined effects of the weir and tub trawl fisheries on marine resources around Mount Desert Island were ubiquitous and pernicious. In 1889, 1,730 fishermen fished near shore in 1,371 boats while 359 men from all of Hancock County fished in 41 vessels averaging just over 45 tons. While the increase in numbers of fishermen suggests that rusticators had improved local seafood sales, the rise in vessel tonnage suggests that the ground fish industry/fishery had been forced farther offshore to supply market demand. Over 3.5 million pounds of cusk, haddock, hake, and pollock were dried ashore for the salt fish market and shipped to Portland, Boston, and New York by schooner, while fresh halibut and swordfish were shipped by train on ice to Boston and New York. Shore fisheries throughout Hancock County landed about 22 million pounds of seafood, counting lobsters and shellfish, and 4.3 million pounds of seaweed.

By weight harvested and value sold, the decline in these fisheries might not have been apparent, but cod, cusk, haddock, hake, and pollock were a shrinking part of the Mount Desert region’s coastal fisheries, while herring, alewives, salmon, shad, smelt, eels, flounders, shellfish, and seaweed were taking up the economic slack. This expanded harvest could not continue indefinitely, as it took all segments of the ecosystem. While the end of traditional Frenchman Bay fisheries was several generations into the future, they were clearly on the wane.

In 1889 declining fisheries should have sounded alarms, but technology and diversification obscured the problem. Thirty years later, in 1919, the number of vessels that fished on offshore grounds had declined by half, and the number of vessel fishermen in Hancock County had shrunk from 359 to 180. A slight increase in shore fishermen, who fished coastal waters, absorbed some of the reduction in vessel crews, and the 243 weirs, pound nets, and traps deployed still yielded millions of pounds of herring and other fish.

At the same time, a new and geometrically more efficient gear type had appeared. Engine-powered otter trawls dragged a large net behind or from the side of the vessel. This net was held open by two large doors that flared out as the vessel advances. There was but one of these highly efficient vessels in the Hancock County fleet in 1919, and it took 10,000 pounds of flounder. That was a portent. As otter trawls became more affordable, they proliferated along the coast. Initially they compensated economically for decades of gradual, but persistent, population decline. Whole schools were catchable— not just fish that bit a hook. In the 1930s, otter trawls skippered by skilled fishermen could harvest almost anything in the water column, from forage fish like herring to predators like cod and haddock, and even the occasional lobster.



The *Thunder Bay*, a ground fish trawler, was built and operated by Victor Levesque and his son Timmy, both long-time skilled fishermen from Bar Harbor. Alas, Victor passed away on January 6, 2015, as this article went to press. He is greatly mourned by the local community. Thanks to Beth Beaulieu for permission to use her photograph.

Part 2: The Living History

In trying to understand the last 100 years of cod fishing around Mount Desert Island, both its decline as well as its role in local communities, we benefit from the memories of people who have shared their recollections. Nine local people—Elmer Beal,²¹ Dennis Smith,²² Ted Ames,²³ Dennis Damon,²⁴ Ralph and Marion Stanley,²⁵ Jarvis Newman,²⁶ his daughter Kathe Newman Walton,²⁷ and Howdy Houghton²⁸ remember their grandfathers' and fathers' stories of how it used to be, and their own days catching fish commercially, to feed their families, or even just for fun. They remember working on the wharves, building boats for fishermen, and fishing as a part of life on Mount Desert Island. The following traces the twentieth century through their experiences. The story of the cod collapse is a tragic one. Telling that story through the words of some of the people who lived through it is one way for us to pay homage to the passing of an era on Mount Desert Island and beyond.

Before World War II

Mount Desert Island fishermen of the early 20th century are revered by their descendants for their tremendous knowledge about local fishing grounds. Kathe Newman Walton, daughter of Southwest Harbor boat builder Jarvis Newman, talks about her grandfather Laurence Newman, who was a fisherman “back in the day [when] there wasn’t depth sounders, so you had to figure out the peaks and valleys by sounding, by dropping your line, and my grandfather could position [Mount Desert] Rock and the lighthouse and the various buildings, and the mountains of MDI and his boat, he could tell whether he was in a peak or a valley— oh it was amazing.” This knowledge was handed down through generations. Dennis Damon’s father showed him his “marks,” places noted on a chart or simply remembered and used to navigate and find fish. “The highest point on Great Cranberry, you had to line up the eastern end of Sutton with that, and then you had to do something with the Monument, East Bunkers Ledge. The thing that got me about it, was that he knew that there was a piece of bottom there, he knew that this was the time of the year that the fish might come in, he knew where the marks were, he knew all that stuff.”

These skills paid off as the waters around Mount Desert continued to provide bounty for local fishermen in the early 20th century. Ted

Ames' mother's family came from Mount Desert Island. Ames recalls his oldest uncle Clarence, who fished out of Southwest Harbor in the 1920s. At the time, "he was baiting trawl and there were a lot of dory men who tub trawled for cod and haddock, literally in the harbor, and around. When I asked him how they did, he said oh five, six, 700 pounds of fish a day."

Fish congregated in places much closer to shore compared to today, and also in much greater abundance. When he was a schoolteacher on Mount Desert Island, Ames collected stories from some old time tub trawlers who also shared their marks with him, "and one of them that got me most was literally off the end of the Coast Guard dock, that was one of his favorite haddock sets, and all through the Eastern Way and Western Way was all good fishing. That was back in the '20s. The same was true on all these old handline spots around the Duck Islands, and Bakers Island, during those years they were catching haddock outside the Weaver Ledge in Bass Harbor." Ames refers to haddock because fishermen targeted all ground fish.

World War II gave fish some relief from large-scale fishing while Nazi submarines patrolled offshore, but Mount Desert Island residents continued to rely on fish for food. According to Elmer Beal, whose grandfather Harvey Beal opened Beal's Wharf in Southwest Harbor in the 1930s, "World War II had a significant impact on what people fished. My grandfather had three boats. During the war, he fished one million pounds per year. He fished mostly shad—but anything. There was a market for any fish during the war because there was no meat."

Most of the cod that came through Beal's Wharf went to Boston for the fresh market, but some was kept and dried for the local market. Five- or six-pound cod were dried on the roof of the wharf building, with racks built of wood and chicken wire. "You had to watch out for flies and maggots, but the old timers who ate the fish didn't care about the maggots, they just picked them off. Or maybe that was the old timers I knew!" Cod and hake were slack salted, which meant soaked in brine and then lightly salted and dried. Beal's Wharf and Stanley's Wharf, across the harbor in Manset, both dried and slack salted. Beal explains: "They would put it in ten bushel barrels. The barrels came from Argentina filled with hide. They were oak barrels. The Beal wharf had many barrels on it, with fishermen's names on them, but the wharf owned the barrels. Kids and people low on the totem pole, like me, got

the job of cleaning the barrels, which by mid-summer smelled pretty bad.” Among local wharf customers, Beal recalls, haddock, halibut, hake, and cod were all popular—haddock more than cod because it was less wormy.



Common sight of dried cod tied up in bundles after drying on fish flakes, likely in Portland.
Courtesy of the Penobscot Marine Museum (image ID LB1995.72.21)

Boat builder Ralph Stanley from Southwest Harbor recalls the wharves being a staging area for the next trip out. “No kids today will experience what I did, baiting trawls on the wharf.” One time at Beal’s, Ralph Stanley got \$5 per tub. This was a lot of money. Stanley explains: “First you took the trawl tub, turned it upside down, then turned the trawl back upside down and then baited the whole thing with herring. You would take the fish and run the hook through the eyes and then curve it around onto the hook. You would use whole fish (herring) or sometimes frozen and cut into chunks. There were about 600 hooks per trawl. Sometimes you got a mess of a tub of trawl line and had to untangle it first.”

Other fishing families around Mount Desert Island worked on their gear at family fish shacks, also called fish houses. The cove at Otter Creek was home to a number of fish houses where local families, such as the Smiths, staged their shore operations. Now the cove is part of Acadia National Park, but historical images show fish flakes and multiple fish houses where men tended nets, lines, and buoys, depending on the seasonal fishery underway. One last fish shack remains in the care of the Otter Creek Aid Society and is used by one lobsterman.

After World War II, everyone catches fish

After the war, Beal recalls that his family's wharf saw a declining demand for fish. When he asked his grandfather "Why don't we buy fish anymore?" the answer invariably was "There is no money in fish anymore," because "the fish were everywhere." Fishing efforts were increasing dramatically. Soldiers returning from the war went fishing. Boat builders, such as the Rich brothers in Tremont, designed more and better boats to support growing numbers of commercial fishermen. Families, mostly the men but some women, too, enjoyed going out hand lining and even tub trawling. Sometimes they sold their catch for a bit of money, other times it was just for family consumption. Kathe Newman Walton recalls her grandfather saving cod tongues and cheeks for himself and her Granny before selling the rest of the catch. Even tourists went fishing. Damon talks of Sammy Planchard's party boat *The Seal*, hand lining eastward of Baker Island. Howdy Houghton speaks of Bud Hodgkins, Oliver Spear, the Frenchman Bay Boating Company, and others taking party boats out of Bar Harbor. Dennis Smith, from Otter Creek, also remembers party boats going out of Bar Harbor. "They'd bring in loads of codfish, and they would only go out as far as Egg Rock. I would see them come in, take the pictures of these big codfish, and dump them. Codfish then were like mussels were. Have you heard how mussels used to be looked at around here? Trash. Same thing with the codfish."

Wharves continued to play an important role in getting fish to market. By the time Elmer Beal was in high school, Beal's Wharf was mostly wholesaling lobster, but at times "boat loads of everything came through and it mostly went to Boston." As urban tastes for salt fish declined, however, a limiting factor was ice. In the 1940s ice still came from local ponds. Beal recalls that his grandfather would get 25-pound blocks of ice from the Stanley brothers across the harbor in Manset, and grind them down in one minute with his special ice grinding machine. The Stanleys had built a sluiceway, with nails sticking out to slow the ice as it came down to their wharf from the pond. In 1952, Beal's parents took him to the last ice harvest day at the Stanley Wharf. After that, the Stanleys got refrigeration and started making 30 pound ice cakes, "using brine because it freezes faster than water."

Local fishermen often took loans out from wharf owners. Beal recalls his grandfather “did this by taking a small percentage of each catch and invest[ing] in the boats, to keep fishermen with him.” Damon recalls that the wharf owners would “take . . . a portion of the catch to pay back the loan. . . . From the wharf perspective, you were keeping fishermen fishing, and you were kind of tying them to make sure that they were landing their catch at your wharf.” For the fishermen, who were “working hand to mouth,” it was a way to access a bit of capital to invest in their gear.

Damon recalls hand lining east of Baker Island and selling the catch at Beals, after the Stanley Fish (be consistent should Fish be in the name above?) Wharf burned down in the 1960s. In that same area, Damon explains, it was not uncommon to catch 500 to 700 pounds in a three-to four-hour period. They would dress (gut) the catch and bring it to Beals for four and a half cents per pound. He recalls one day catching two cod in the 30- to 40-pound range. In the mid 1960s, 15 to 25-pound cod were more the norm but “when you went out handlining, there was no doubt that you caught something.”



Fish shacks on the east shore of Otter Cove, ca. 1900.

Photograph by Virgil Dorr. Courtesy of the Northeast Harbor Library

Fishing methods start changing

For a while, traditional fishing methods persisted as new technologies grew. Handlining and tub trawling for ground fish

continued to be practiced by local fishermen. Many handliners transitioned away from bait in favor of short rubber tubes on their hooks to attract fish. Jarvis Newman explains that when he fished commercially summers during high school, mostly around Baker and the Rock, “we wouldn’t have time for bait. Each of us would have a line, or two lines, and by the time you were pulling in one, there is one on the other, and you pull, it is very deep water, and you just yank the fish off and throw that back out and haul another one, one at a time. We got one to one and a half cents a pound. That was a big deal. But we got 4000 pounds. It was when it was busy, in the ’50s and ’60s.”

At this time, fishermen around Mount Desert fished year round from the same vessel but targeted different species depending on the season. Damon explains that his father “might have gone dragging [for ground fish] in the spring and in the summer, he might have gone lobstering in the fall, he might have gone scalloping in the winter.” In winter, small local boats had neither capacity in the hold space nor safety against heavy seas to head far offshore for dragging, so they scalloped inshore instead. But year-round dragging was becoming more attainable with the major technological transformations underway then. Electronic devices, developed initially for submarine warfare, were gradually adapted for fisheries. This made finding fish easier for everyone, regardless of traditional skill level, although it didn’t replace knowledge of local fish movements.

Ames explains how fishermen used “to catch ground fish all the way up towards Bartlett Island in the deep water. . . . That died first, toward the end of the first otter trawling business, when they had a bunch of draggers that were going and trash fishing, they would simply tow anything they caught from scallops and kelp, dogfish and ground fish, fill a boat and sell it for so much a ton, and they did that in Blue Hill Bay . . . all the way down the Bay to [the] northward and southward end of Placentia, inside of Swan’s Island.” But Ames believes that the runs of cod and haddock in Blue Hill Bay had already started declining. The Leonard Lake Dam in Ellsworth blocked the Union River in 1907, so that shut off the ground fish prey base of alewives and sea run fish. “But because they had the sardine plant going in Bass Harbor, they just dumped the waste just outside the harbor, and that created an attraction,” so the decline likely went un-noticed.

Otter trawls quickly proliferated, and boats from elsewhere started descending on local waters. Beal recalls Gloucester boats occasionally following the fish inshore and coming in to sell their catch at Beals Wharf. These 60-foot boats worked the length of the coast, and were much bigger than local boats. In the winter of 1947, a fleet of otter trawlers came into Frenchman Bay and took 1,000,000 pounds of flounder out of the Bay itself.²⁹ Cod, cusk, haddock, hake, and pollock became more and more scarce, along with herring, shad, smelt, tomcod, and alewives. By the 1950s haddock and flounder were more important than cod to Maine ground fish fishermen. Distributing effort across a number of targets may have been responsible for the low but steady average catch of 3,500,000 pounds of cod per year from 1950 to 1974.

The 1970s on: management and distribution changes

By the mid-1970s, local fishing families were concerned about foreign factory trawlers coming into Maine waters. Kathe Newman Walton, who fished recreationally with her father Jarvis Newman, recalls, “They didn’t have handlines, or trawls; they were indiscriminately sucking up the fish. We thought they were like vacuum cleaners fishing.” Indeed, in 1975, cod catch began to rise significantly, perhaps anticipating the passage of the Magnuson-Stevens Act a year later. The Act created the legal foundation for national fisheries management, established the 200-mile Exclusive Economic Zone to protect U.S. fisheries, and encouraged the rebuilding of American fleets that were considered outmoded. Beal explains: “The government subsidized a U.S. fleet and everyone got into it. Fishermen would say ‘Dentists and doctors are getting into fishing’ but they didn’t actually fish. They owned the boat and got captains.” Foreign fleets may have been kicked out by the Magnuson-Stevens Act, but fishing pressure from U.S. gillnetters and draggers mounted rapidly.

At the same time, shoreside operations were also changing rapidly. Iconic fish wharves were on the wane in favor of a decentralized distribution system. Communities like Manset that were built on private fish wharves got funding to build public piers. Fishermen increasingly landed their catch at these public piers and either transported it themselves or paid for truckers to haul it to Boston, Connecticut, and New York. Ames explains that Mount Desert Island and communities Down East were especially complicated. “You always have to ship your

fish because there is no local processing that can handle any volume, which means that back in that time, [fishermen] had to pay anywhere from 12 to 15 cents a pound for someone to just ship your fish.” Howdy Houghton, a ground fishermen out of Bar Harbor in the 1980s, explains that once the Portland Fish Exchange started in the mid- 1980s, fishermen “sometimes hauled three trailers a week off the pier in Bar Harbor. Now they are hauling that amount of lobster. The Portland Fish Exchange stabilized and increased the price for fishermen a lot.”

For a while, a small percentage of the catch remained on Mount Desert Island for local markets, especially in the summer. In the mid-1980s, Snicker Damon (Dennis’ brother) ran the SNG market. As Houghton explains, Snicker would “come right down to the boats, and buy the fish. As a matter of fact, I had a cordless phone when I had the *Sea Princess* so I could call him up from the boat.” Elmer Beal, who started The Burning Tree restaurant in Otter Creek in the 1980s, relied on SNG for his supply of fresh fish. There were a few other local markets—Captain Hulls Seafood Market in Hull’s Cove, for example—but little by little, Mount Desert Island restaurants and families who wanted local fish had to settle for fish that traveled to the Portland Fish Exchange first.

The undisputable decline

Meanwhile, catch continued to drop. Ames’ personal fishing story shows just how quickly things changed: “I had set up the boat to fish 45 nets—gillnets—and I’d average anywhere from five to 20,000 pounds,” with about 20 percent of the catch being cod. The average stayed about the same when he switched to dragging in the mid 1980s. At the time, about a dozen draggers put out of Southwest Harbor, Ames recalls, and “the technology was so powerful, if you knew where the fish were, you could do very well.” But decline came quickly after that. Ames went from an average two- to three-hour tow of 2000 to 2500 pounds, down to 1000, then 500 or 600 pounds. In 1990, the final year Ames ground fished, “every body was doing about 100 pounds an hour and that was the best you could do whether you were a 70-foot boat or a 40-foot boat.”

Houghton offers a parallel story. Fishing out of Bar Harbor, Houghton dragged on various boats throughout the 1980s, targeting “all the ground fish. . . .Flats [flounders] were worth more at that time, but

we just caught whatever was there; it was a mix of everything and it would seasonally change to more abundance in different species but we were catching everything.” According to Houghton, “the Bar Harbor 1988 Comprehensive Plan listed 14 draggers out of Bar Harbor alone.” Houghton steamed out of Frenchman Bay towards the Ridges, Mount Desert Rock, and off Petit Manan, but never in the 1980s did he or anyone that he knew of fish inside Frenchman Bay, that prolific cod fishing ground from the 1800s. By the mid-1950s, Houghton explains, there was nothing there to catch. Offshore volume was declining, too. In Houghton’s case, the vessels he fished on were hauling “1000 to (added space here)1500 pounds on a good day in a small boat—well, more maybe in the mid-’80s, but then we went from two days to three days because two days catch wasn’t viable after a while, it wasn’t enough.”

Ames and others have documented that the inshore population was likely already decimated by the 1950s. However, pockets of abundance, such as around Mount Desert Rock, enabled continued commercial and recreational fishing. Kathe Newman Walton explains that when she went fishing with her father and grandfather, “Fish were so thick you would actually hook them in their bellies, their tails, their dorsal fins, and it’s like this is awful, it’s not even fair! . . . They didn’t even mean to get hooked, they didn’t go for the hook, they didn’t bite it, but that is how thick they were. And you know, two and a half to three feet long; it was awesome, very heavy too.” The Newmans would regularly steam to Rich’s Wharf in Bass Harbor with 2000 pounds of dressed fish after a day or two of long lining off Mount Desert Rock. Dennis Smith shares a similar story of seeming abundance, “We’d go up to Mount Desert Rock, get there by daylight, if we didn’t get 1000 pounds of codfish it was a bad day. You didn’t have to use bait, just dropped your jig down and bam, two or three times. Then the draggers and gillnetters found them and that was the end of them, but back then, it was fast as you could reel them in.”

In 1991, Maine’s cod catch peaked at more than 21,000,000 pounds, five times higher than in 1974. The next year Maine’s cod population collapsed, along with stocks across the Northwest Atlantic. From 1991 to 2013, the catch fell by almost 99 percent. By the mid- to late 1990s, the era of cod fishing for Mount Desert Island had effectively closed, until further notice. Today, no one on Mount Desert Island has

an active ground fishing permit, and no one from Port Clyde to Canada is fishing for cod fish.

The ecological prognosis

What has only recently become apparent is that the distribution of cod in the Gulf of Maine has also changed dramatically, perhaps starting decades ago. The historical cod population was not only much more abundant, it likely had a complex stock structure rather than the single-population structure assumed in management models today.³⁰ Population size and complex structure are linked. Local cod populations were adapted to particular spawning grounds strung along the fertile coast, frequently near river mouths and estuaries that supported high productivity at all levels of the food web.³¹ Losses among these locally adapted coastal stocks have not been replaced. There is also increasing consensus that forage provided by sea-going fish like herring and menhaden, and anadromous fish like alewives, was critical to historical cod populations, but these species have also deeply declined from historical numbers. The result: today, the eastern Gulf of Maine cod population has virtually vanished. No spawning grounds remain, and few adult cod can be found north of Casco Bay. The three distinct remaining spawning populations in the Gulf of Maine are all found in its southwestern portion. Sand lance, the only coastal forage fish that remain in any numbers, are found nearby on Stellwagen Bank.

It is uncertain whether eastern Gulf of Maine cod can be restored, or what a realistic timetable for restoration might be. The drastic reductions on commercial and recreational cod fishing recently implemented by the New England Fisheries Management Council may very well be, as Houghton put it, “too little, too late.” These new regulations reflect a historical, cultural, and ecological tragedy that today directly affects perhaps 300 Maine ground fishermen, none of them from eastern Maine, compared to the 2,000 ground fishermen around the Mount Desert Island region alone in the 1860s.

By way of contrast, Maine has issued more than 4,000 permits to lobster harvesters. Fishermen from around Mount Desert Island today harvest lobster on the same grounds that their grandfathers and great grandfathers fished for cod. Fishing continues to play a critical role in the identity of Mount Desert Island communities, but the dominant targeted species has changed completely. We are only beginning to

understand the ramifications of the widespread ecological shift in the ocean and our modern economic reliance on a single species fishery. Always in the past, fishermen could diversify their catch or venture farther from shore when needed. Today, however, there is little left to fish, and few places to go when near-shore grounds dry up.

Acknowledgements and Notes

Heartfelt thanks to the interviewees: Elmer Beal, Dennis Smith, Ted Ames, Dennis Damon, Ralph and Marion Stanley, Jarvis Newman and his daughter Kathe Newman Walton, and Howdy Houghton.

¹ Martin Pring's Voyage in 1603, from *Hakluyt's English New England Voyages* (London: Hakluyt Society, 1983), 216. Pring thought they were at 43° latitude, but his description matches that of the Fox Islands and Matinicus area.

² Ted Ames, fisherman and award-winning fisheries researcher, interviewed by Natalie Springuel, December 8, 2014.

³ Unless directly referenced, information and statistics used in Part 1 are taken from the logs and fishing agreements of the Frenchman's Bay Customs District, 1861-1865 (National Archives and Records Administration [NARA], Waltham, MA, Record Group 36); license records from the Frenchman's Bay Customs District (NARA, Washington, DC, Record Group 41); United States Census Records for 1850-1870 (online via Ancestry.com); and from "Fisheries of the New England States," published in annual reports of the U.S. Fish Commission and Bureau of Fisheries from 1888 (for 1887) to 1940. Analytical results have been derived from data in these public records.

⁴ Samuel Eliot Morison, *The Story of Mount Desert Island* (Boston: Little, Brown & Co., 1960), 23.

⁵ Morison, *Mount Desert Island*, 29. For comparison with other early fishing communities, see Daniel Vickers, *Farmers and Fishermen, Two Centuries of Work in Essex County Massachusetts, 1630-1850* (Chapel Hill: University of North Carolina Press, 1994).

⁶ John DeLaittre, *Reminiscences* (Minneapolis, MN: Bolger Publications, 1987), 25-26.

⁷ Howard Chapelle, *American Small Sailing Craft* (New York, NY: W. W. Norton & Co., 1951).

⁸ Edward P. (Ted) Ames, "Atlantic Cod Stock Structure in the Gulf of Maine," *Fisheries* 29 (2004):10-27.

⁹ Generally accepted as 70 pounds to the bushel for herring (*NEFMC Discussion Document for Framework 4 to the Atlantic Herring Fishery Management Plan* April 2014), 8.

¹⁰ *Maine Mining and Industrial Journal*, July 18, 1884, 8.

¹¹ *Maine Mining and Industrial Journal*, May 8, 1885, 8.

¹² K.E. Alexander, W.B. Leavenworth, J. Cournane, A.B. Cooper, S. Claesson, S. Brennan, G. Smith, L. Rains, K. Magness, R. Dunn, T.K. Law, R. Gee, W.J. Bolster,

A.A. Rosenberg, “Gulf of Maine cod in 1861: historical analysis of fishery logbooks, with ecosystem implications,” *Fish and Fisheries* 10 (2009): 428-49.

¹³ Ralph Stanley, award-winning boat builder from Southwest Harbor, in conversation with Bill Leavenworth and Karen Alexander, June 15, 2011.

¹⁴ W. Jeffrey Bolster, *The Mortal Sea: Fishing in the Atlantic in the Age of Sail* (Cambridge, MA: Harvard University Press, 2012), 171-82. The quotation from James Lindsey is included in these pages.

¹⁵ Letter from John Emery, Boston, Massachusetts to George Hinman, Esq., of Sullivan, Maine, May 23, 1848. Collection of the Penobscot Marine Museum, Searsport, Maine, gift of William Leavenworth.

¹⁶ For more information about competing uses of natural resources in coastal Maine during the late 19th century, see Richard Judd, *Common Lands, Common People: the Origins of Conservation in Northern New England* (Cambridge, MA: Harvard University Press, 1997).

¹⁷ George Brown Goode, *The Fisheries and Fishery Industries of the United States, Section II, A Geographical Review of the Fisheries Industries and Fishing Communities For the Year 1880* (Washington, DC: United States Government Printing Office, 1887), 28-35.

¹⁸ *Maine Mining and Industrial Journal*, October 27, 1882, 5.

¹⁹ Ibid.

²⁰ *Maine Mining and Industrial Journal*, August 15, 1884, 7. (In this case, “Bar Harbor” was a geographic generic, for Greening’s “Landing” or Island in Southwest Harbor.)

²¹ Elmer Beal, owner of The Burning Tree restaurant in Otter Creek, interviewed by Natalie Springuel, October 31, 2014.

²² Dennis Smith, fisheries expert from Otter Creek, interviewed by Natalie Springuel, December 2, 2014.

²³ Ted Ames, fisherman, award-winning fisheries researcher, and founder at Penobscot East Resource Center, interviewed by Natalie Springuel, December 8, 2014.

²⁴ Dennis Damon, former fisherman and state legislator, and current board member at Penobscot East Resource Center, interviewed by Natalie Springuel, December 8, 2014.

²⁵ Ralph Stanley and his wife Marion Stanley in conversation with Natalie Springuel, Bill Leavenworth, and Karen Alexander, December 11, 2014.

²⁶ Jarvis Newman, award-winning boat builder from Southwest Harbor, former fisherman, and owner of Newman Marine Brokerage, interviewed by Natalie Springuel, December 22, 2014.

²⁷ Kathe Newton Walton, broker at Newman Marine Brokerage, interviewed by Natalie Springuel, December 11, 2014.

²⁸ Howdy Houghton, former ground fisherman from Bar Harbor, interviewed by Natalie Springuel, December 11, 2014.

²⁹ Ted Ames’ account, heard from his uncle who was part of that fleet. (As described to Bill Leavenworth, May 15, 2013.)

³⁰ A. I. Kovach, T.S. Breton, D. L. Berlinsky, L. Maceda & I. Wirgin, “Fine-scale spatial and temporal genetic structure of Atlantic cod off the Atlantic coast of the USA,” *Marine Ecology Progress Series* 410 (2010): 177-95.

³¹ Ames, “Atlantic Cod Stock Structure in the Gulf of Maine.”
